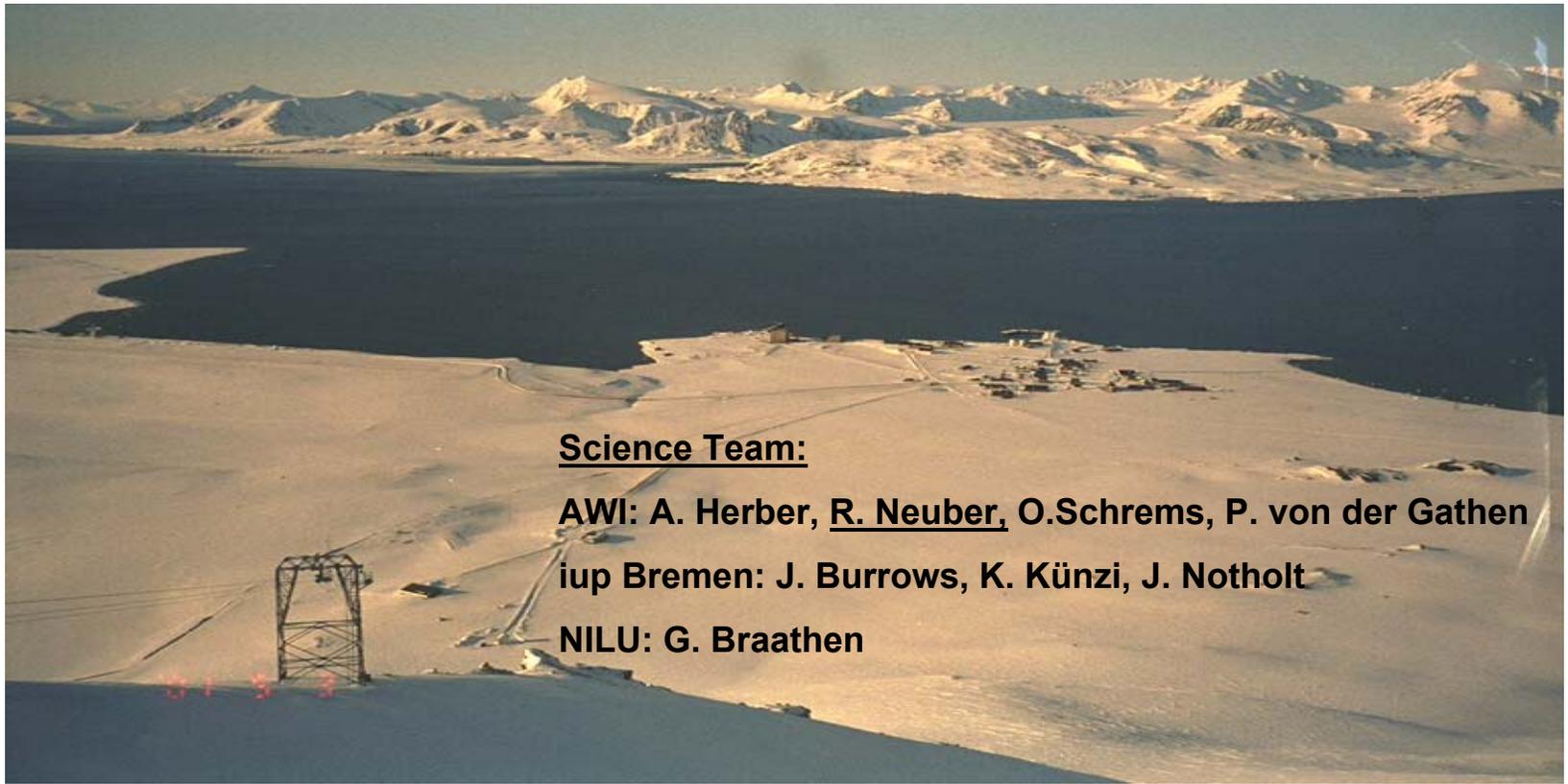


## Ground based Validation of SAGE III by the NDSC Primary Station at Ny-Ålesund, Spitsbergen



### Science Team:

AWI: A. Herber, R. Neuber, O. Schrems, P. von der Gathen

iup Bremen: J. Burrows, K. Künzi, J. Notholt

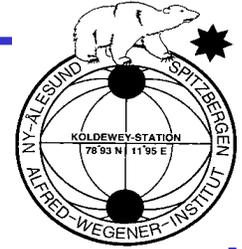
NILU: G. Braathen

## Instrumentation in Ny-Aalesund

<u>Instrument</u>	<u>Quantity</u>	<u>Altitude</u>	<u>Operation</u>
LIDAR	O <sub>3</sub> , PSC, T	8 – 45 km	Weather dependent
RAM MW	O <sub>3</sub> , ClO, H <sub>2</sub> O	12 – 55 km	Continuous
FTIR	Trace gases	Columns (profiles)	Moon, sun
Photometer	Aerosol O.D.	Column	Sun
MAX-DOAS	Trace gases	Columns (profiles)	Sun
SAOZ-DOAS	Trace gases	Columns	Sun
Balloons	O <sub>3</sub> , H <sub>2</sub> O, PSC	0 – 30 km	On demand

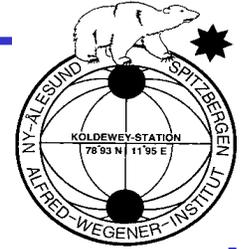
## Science goals

- Validation of SAGE III and SCIAMACHY data products
- Quantification of stratospheric O<sub>3</sub> loss
- Chemistry of O<sub>3</sub> loss processes
- PSC formation processes and extent (synoptic PSCs ?)



## Measurements

- Ozone content & variability
- Extension of measurements from one point to a hemispheric perspective
- Analysis of PSCs, including their dependence on water vapor content & temperature



## Operation

- Preliminary data for flight planning purposes :
  - \* O<sub>3</sub>, PSC occurrence
  - \* Meteorological data from Spitsbergen
- Integration with VINTERSOL activities
- Near real time data:  
<http://www.awi-bremerhaven.de/MET/NyAlesund/index.html>
- Tel.: +47-790-27114 or -27132
- E-mail: [manager@awi-koldewey.no](mailto:manager@awi-koldewey.no)